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ABSTRACT

This collection of eight papers reflects Dutch experiences on topics of common interest and concern in the education of less able 16 to 19 year olds throughout the European economic community. "An Outline of the Dutch System of Education" (Philippa Andrews and Colin Turner) provides a basic background to Dutch education, concentrating particularly on the further and technical systems. "Introduction and Background to Participation Education" (C. Turner) discusses how to maximize participation by early school leavers in vocational programs. "The Institutional Network of Participation Education" (Russ Russell) describes the interrelationships between the various sectors. The next two papers by C. Turner and R. Russell, respectively, describe two participatory educational institutions. "The Operation of Partial Compulsory Education in the Netherlands" (Arie Mens) reports some of the experiences resulting from raising the educational requirements. "Industrial Training and Apprenticeship in the Netherlands" (C. Turner) supplements the first paper to provide a briefing to Dutch educators. "Vocational Preparation in Holland," an edited version of an article printed in EDUCA, October 1978, raises the problem of trying to achieve a qualified apprenticeship in a shorter period of time. Appendixes include basic statistics on the Netherlands, addresses of organizations, and a bibliography. (YLB)

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1979

THE NETHERLANDS: 16-19 EDUCATION

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FOREWORD

This collection of papers reflects Dutch experience on topics of common interest and concern in the education of less able 16-19 year olds throughout the European Economic Community. The first paper, *An Outline of the Dutch System of Education*, provides a basic background to Dutch education, concentrating particularly on the further and technical systems. The seventh paper, *Industrial Training and Apprenticeship in the Netherlands*, provides an important supplement to the first. Together these two papers provide a broad background of understanding against which the other papers may be read. They also provide a briefing for visitors to the Dutch education system.

Colin Turner's paper, *Introduction and Background to Participation Education*, discusses a problem common to most European countries - how to maximise participation in society by those who leave school as early as possible and thereafter either experience little or no education, or technical education leading towards an apprenticeship for a technician occupation. Dutch experience and experiments in this area will be of interest to educationalists throughout Europe.

The paper by Arie Mens is an edited version of his research report on the operation of compulsory education in the Netherlands. He takes further and reports in a different form some of the experiences resulting from raising the education requirements of the people discussed in Colin Turner's paper on participation education.

The final paper, *Vocational Preparation in Holland*, is an edited version of a paper published by EDUCA, an English magazine and information service. It relates the Dutch system of vocational education to the problems discussed in the Engineering Industry Training Board's Information Paper 49. The problem raised in this paper was that of trying to achieve a qualified apprenticeship in a shorter period of time. (The paper recommended that a significant part of basic technical knowledge should be included as part of general education within the United Kingdom school system). This problem is one which faces many EEC countries. They are under the twin pressures of raising the school leaving age while lowering the age at which full craftman's status and wages are achieved. The comments comparing the proposals for the English system with some elements of the Dutch experience will be of interest to technical educators in many countries of the European Community.

Apprendix I, *The Helping Agencies and Research Institutes*, is of particular relevance to these papers, but it has also a more general application. Appendix II provides basic statistical material which allows the Netherlands to be compared with other EEC countries. Apprendix III and the bibliography will assist readers who wish to pursue points of their own interest.

AN OUTLINE OF THE DUTCH SYSTEM OF EDUCATION

PHILIPPA ANDREWS, FORMER REPORT EDITOR, COOMBE LODGE, and
COLIN TURNER, STAFF TUTOR, COOMBE LODGE

The education system of the Netherlands is more complex than that of many countries, particularly in the variety of institutions at the secondary and further education level. It is intended to simplify the system over the next two decades. This paper describes the primary stage (roughly 4-12), stage one of further education (roughly 12-16 or 18), and finally stage two of further education (roughly 16 or 18 onward). We will then look at current developments and the Dutch Government's future plans for their education system. The present system is shown in Diagram 1 on page 10.

It will be useful while looking at the Dutch system to bear in mind some basic statistical data. These appear on page 48.

THE PRIMARY STAGE

Children attend a full time primary school from ages six to 12. Previous to this most children voluntarily attend a nursery school for one or two years. Approximately 90 per cent of children are at such a school immediately before entering primary school.

A phased reduction of the compulsory school age to four has been introduced by integrating nursery and primary schools. This has given rise to some concern that the traditional learning methods of the primary schools, organised in classes and by subjects, may overwhelm the child-centred, integrated learning of the nursery schools. The intention is that the new primary school will encourage the development of the personality of each child by giving attention to his individual identity and recognising periods of marking time so as not to penalise the child. It is hoped that the basis of equal opportunity will be laid in this period. A particular point has been made of avoiding sex sterotyping which may be the basis of discrimination in the future.

FURTHER EDUCATION - STAGE ONE

On completion of primary school the pupil may move to one of four types of school. These were reorganised by the Act on Further Education, 1968, generally known as the Mammoth Act because it covered such a wide field of educational provision, excluding only the universities and apprenticeships. Its reorganisation of existing institutions aimed particularly at improving educational opportunity for all and postponing premature vocational choice. The decision as to which post-primary school a pupil enters is based on the results of tests, the

advice of the head-teacher of the primary school, and the parents' wishes.

The four schools are as follows:

The VWO Colleges (Colleges for Preparatory University Education)

These schools provide pre-university education over a six year course (12-18). There are three distinct types: the gymnasium, giving an education in the classics and sciences; the atheneum, specialising mainly in sciences, social sciences, and languages; and the lyceum, which combines the education given at the gymnasium and atheneum.

The HAVO Colleges (Colleges of Higher General Education)

These offer similar combinations of subjects to the VWO colleges, but they are studied for only five years (12-17) and a somewhat lower level (no classics, less or no science, more general education - geography, history, arts, etc). Students who do not go into full time work typically move into HBO colleges on completion of their course. These are described in the next section.

The MAVO Schools (Schools of Medium General Secondary Education)

These contain a four year course (12-16) which is either a preparation for full time work or for medium vocational education and apprenticeships.

The LBO Schools (Schools for Preparatory Vocational Education)

Originally students were trained in these institutions for a certain trade (e.g. a painter or carpenter), and further training was later provided in industry in a type of apprenticeship. To prevent such early vocational choice at the age of 12, the schools have been drastically changed. In the four year courses they now offer, the first two years consist of a more general education though still with a vocational bias. In the second two years the students join one of the vocational departments and receive an orientation to the chosen group of vocations.

Because a large number of pupils in LBO schools do not form homogeneous groups, three separate streams with differentiated curricula have been developed:

(a) A purely practical stream with individual guidance. This is for students of low levels of attainment, or who have learning difficulties.

(b) A practical stream supported by theoretical subjects.

(c) A theoretical stream supported by practical subjects.

The types of lower vocational schools and the subject areas they cover are as follows:

The Lower Technical School which may include any of the following departments:

General technical	Electrical eningeering
Car repairs	Furniture making
Agricultural machinery repairs	Printing
Building	Bread and pastry making
House painting	Fine metal working
General catering	Automotive mechanical engineering
Chef and waiter training	
Metal working	Carpentry
Plumbing	Brick laying
Process techniques	Confectionery

Lower Natutical Education which includes:

Primary Fishery Schools	Inland Navigation Schools
Dockers' Training Schools	Seamens' Training Schools

Lower Domestic Science Schools which include departments in:

Domestic training, needlework, clerical work, hairdressing, and shopkeeping.

Lower Agricultural Education including forestry.

Lower Commercial Schools

One of the problems with all these lower vocational schools is that a number of students on completing the course have no further full time educational institution to which they can move and may not reach a sufficient standard to start an apprenticeship training. Such students have tended to stay on to form a fifth year. The Government is trying to devise a proper system to cater for this group which would place them in post-16 institutions. Most students, however, progress either to technical college or to an apprenticeship. Another problem associated with these schools is the failure to develop a common first year (the bridge class) so that students could move to another type of school if a wrong choice had been made. This was envisaged by the Mammoth Act, but unfortunately, it failed, mostly because the various schools were unable or unwilling to work together.

FURTHER EDUCATION - STAGE TWO

Following attendance at one of the above four institutions, students progress to one of five types of institutions for full or part time study.

Students from VWO colleges can proceed to a university. The Netherlands is well provided with universities, and there has been some criticism that too much money is spent on them in proportion to the rest of educational expenditure. A university proper must have at least three faculties of which one is medicine or mathematics. Those that do not fulfil this requirement are know as *hogescholen* but are recognised as being of

university standard. The students' course has been of six years' duration, but has recently been reduced by law to four or five years. The universities are:

State University of Leyden
State University of Groningen
Municipal University of Amsterdam
State University of Utrecht
Free University of Amsterdam
Catholic University of Nijmegen
State University of Rotterdam
State University of Maastricht
Delft University of Technology
Agricultural University of Wageningen
Catholic School of Economics, Tilburg
Eindhoven University of Technology
Enschede University of Technology

Higher vocational education is offered at HBO colleges which are similar to British polytechnics. Most students come from HAVO colleges, but some come from VWO colleges and some from a first course at the medium technical colleges (see below). Courses are three or four years, and include the following:

Higher technical education (includes one year in industry)
Higher nautical training
Higher domestic science training (including dieticians' training)
Higher agricultural training
Higher commercial education (divided into business administration, commerce, and management)
Socio-pedogogic education (primarily social work, youth service,and community work, but also includes preparation for child welfare,public health, librarianship,journalism,personnel work, and positions in educational institutes for early schools leavers and adults)
Artistic training (including theatre, ballet, music, cabaret, visual arts, film-making)
Teacher training for primary and further education (stage one) schools

MBO colleges (medium vocational education) receive students from the LBO and MAVO schools. They are two-four year colleges, and they exist in some considerable variety with over 100,000 students.

The Technical Schools have a four year course of which one year is spent in industry. They provide a general theoretical and practical base on which students can build when they leave to enter the polytechnic colleges (HBOs) or apprenticeships. A three-year course is provided for training laboratory assistants. A number of one or two year courses are provided for ships' engineers and mates and motormen in coastal trading and fishing vessels.

The Domestic Science Schools offer courses leading to junior management level in dressmaking, fashion design, introductory social work, residential work, child care, dispensing, and

general domestic science.

Agricultural Schools offer two-three year courses in forestry, horticulture and agriculture.

Commercial Schools offer a three-year course in clerical, commercial and secretarial work.

Schools for Training Nursery School Teachers offer a three-year course.

Schools for Socio-Pedagogic Education have courses for family helps, sports instructors, occupational therapists, intermediate social work, residential welfare work, youth leaders, and workers in the social services.

All these colleges or schools are at medium grade or intermediate level. Many students will wish to complete a higher training by progressing to the HBOs (higher vocational colleges) described previously.

PART TIME EDUCATIONAL INSTITUTIONS FOR SCHOOL LEAVERS

All pupils who leave at the minimum leaving age of 16 are required by law to have two days' compulsory schooling a week for one year. There are two main types of institution in which this is done:

1. Regional Colleges for Vocational Training and Education (BBO colleges) provide the day-release theoretical education for apprentices who are working in firms as trainee craftsmen. The programme under which apprentices work is controlled by 37 various training boards, who also control examinations and awards. There are 28 BBO colleges with student rolls of between 1,000 and 2,000. They are entirely part time institutions.

2. Institutes for Informal Social Education. These provide informal education for school leavers who do not attend the BBO colleges. Students are generally in unskilled or transient work or are unemployed. They are not particularly motivated to undertake further study but are nevertheless obliged to attend for two days a week. The curriculum is very informal, there is little class or discipline teaching, and the approach is experimental and student-centred.

NEW DEVELOPMENTS

A series of measures proposed in two documents published in 1975 will significantly alter educational provision. The first of these was a Government memorandum for discussion entitled *Contours for a Further Educational Structure*. As earlier described, it proposed an integrated primary school for pupils aged four to 12. This part is already being implemented. In place of four distinct types of schools that are provided from the age of 12 there would be one 12-16 middle school. The school would be very much an orientation school for students to discover their interests and abilities related to later choice of profession or study. The subject matter to be taught

would be extended, particularly into the creative, artistic, organisational and social areas. Students would be placed in unselected or unstreamed groups, but would be placed in different groups based on aptitude for certain subjects. The prime purposes would be to defer premature choice of vocation or further study and to maintain equal opportunities for the development of each individual. The development of the new middle school with its associated philosophy, objectives, curriculum and methodology is probably the most challenging and crucial of the proposals in the Contours memorandum.

The present provision for 16-19 students would be replaced by a unified high school in which there would be three streams:

1. An academic two-year stream preparing students for higher education;
2. A three or four-year vocational stream preparing students for medium grade functions;
3. A vocational stream with two or three-year courses, offering training for lower grade functions.

There would be a shift from teaching to independent learning, and a close integration with life outside school through participation education (see below). Schools would be required to have at least two of the above streams. If they were both vocational, arrangements should be made to work in co-operation with a school with an academic stream. It is proposed that the minimum school leaving age should be raised to 18 so all students will spend at least two years in a high school.

The major charge in higher education will be the co-ordination of university courses with those offered by higher vocational colleges (HBO), so that students can transfer in either direction at any time during their courses. It is assumed that there will have to be a great increase in the numbers and types of courses offered. The memorandum rejects the principle of integrating the two different kinds of institutions, but expects the primary distinction according to institution to be replaced by primary distinction according to course.

Finally, the memorandum suggests the establishment of the open school which will co-ordinate all facilities for further education after the completion of a conventional education. This will apply particularly to students who leave school at the earliest opportunity, and for whom very flexible systems and provision of credits and educational leave will need to be provided over several years of their lives. These proposals for changes in the educational system by the year 2000 are in the process of public discussion and amendment rather than implementation. They provide a picture of the underlying assumptions and beliefs of the Government. While they may be changed in detail, it is unlikely that there will be a dramatic change in broad outline. The proposals are presented in diagramatic form on page 11.

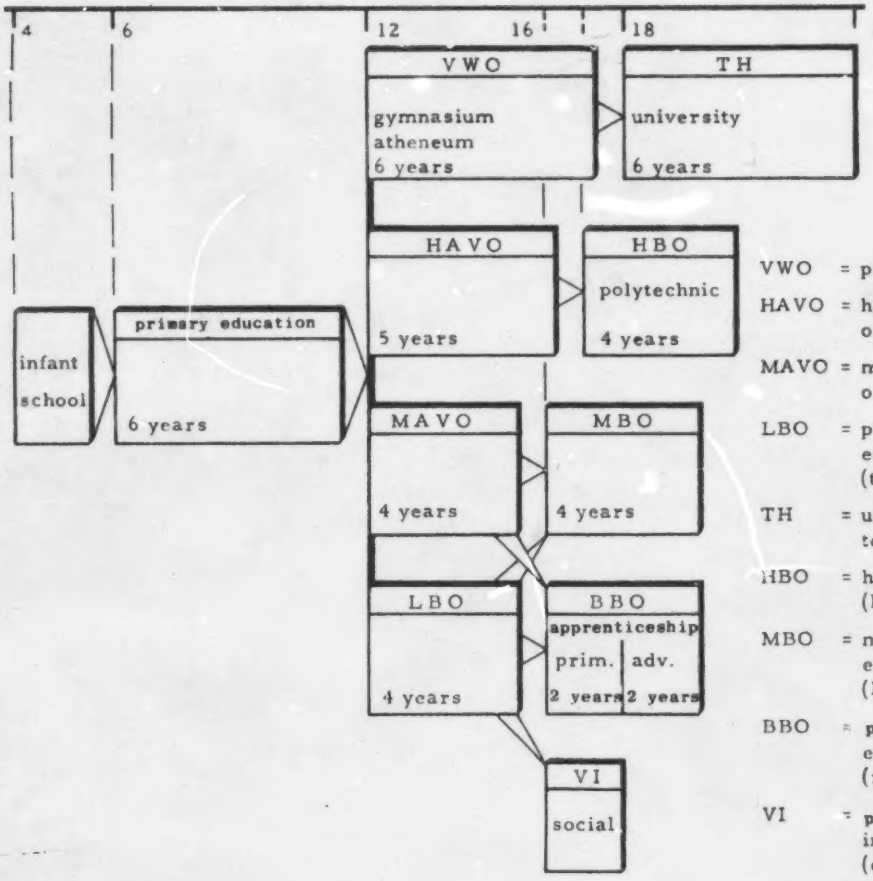
The second major development was put forward in a Government memorandum in 1975 on participation education. There had been

experiments in providing this from 1972 which built on the earlier experiences of the colleges of informal social education. In 1975 the Government reaffirmed the principles that participation education should be introduced for all young people who left school at the age of 16. They were to attend an institution of participation education for two days a week for two years; in the remaining three days they would work in industry, commerce, or some community placement. They would, however, be full time students under the control of the institution. The programme would be devised to maximise the interplay between activities inside and outside the institution, the internal programme being built upon the participation of the student in work, family, and social life. Programmes would be process-oriented, flexible, and student-centred and the institution would be very unlike traditional schools or colleges. Six experimental institutions are already operating and the proposal is that over the next ten years, the colleges of informal social education (called *Vormingswerk* in Dutch) and the regional colleges of part time vocational education should merge into one new kind of institution. This would create 30 such institutions in the Netherlands. The process of intergration has started, and there seems to be a very firm commitment to the achievement of this proposal.

The provision of participation education for the 16-19 age group is described more fully on page 12.

DIAGRAM 1

THE DUTCH EDUCATION SYSTEM



VWO = pre-university education

HAVO = higher general post-primary or secondary education

MAVO = medium general post-primary or secondary education

LBO = preparative vocational education and training (technical schools)

TH = university for engineering technology

HBO = higher vocational education (HTS)

MBO = medium vocational education and training (MTS)

BBO = part time vocational education and training (regional college)

VI = part time (non-vocational) informal social education (educational institute)

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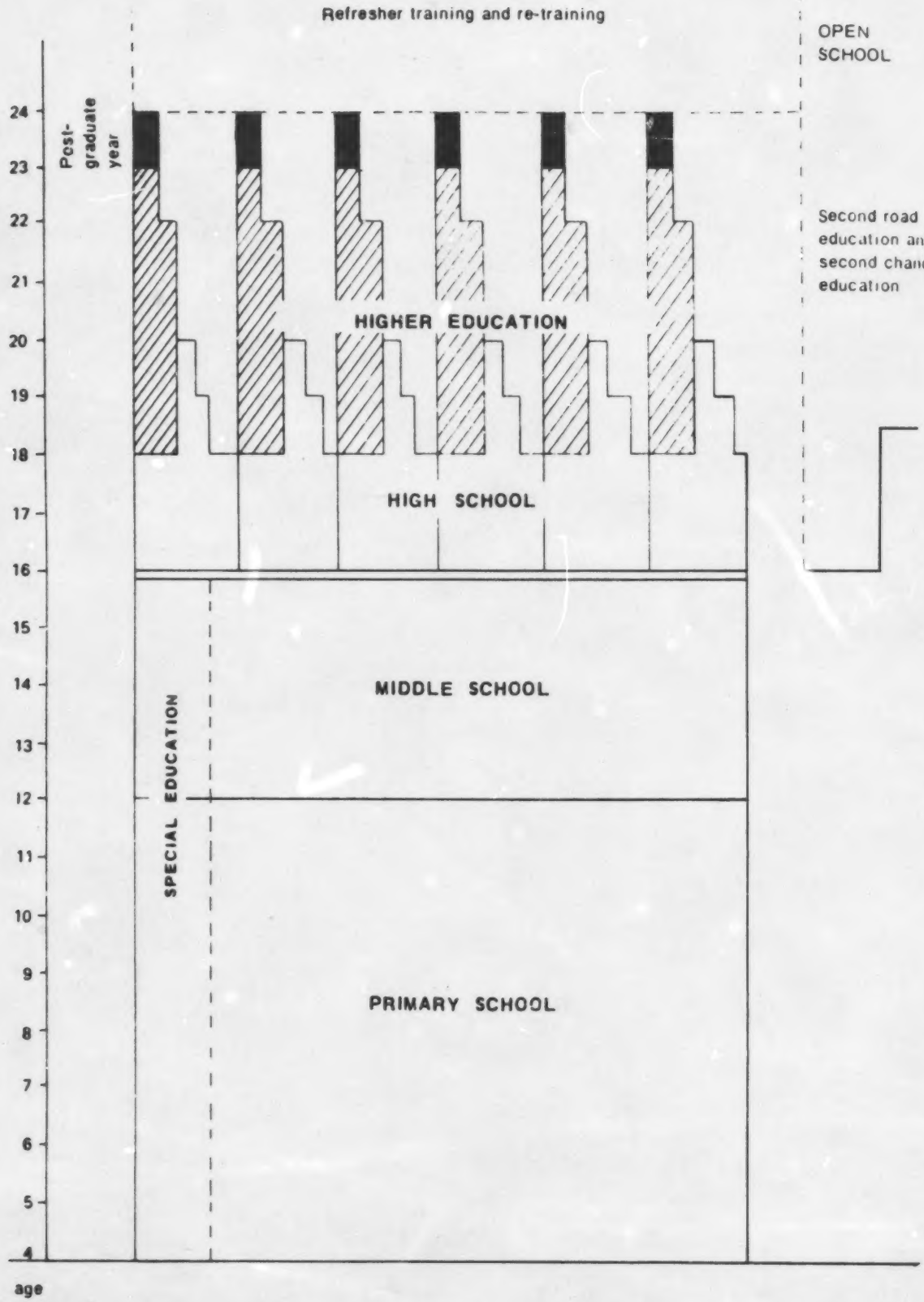
DIAGRAM 2

THE PROPOSED FUTURE EDUCATION SYSTEM



INTRODUCTION AND BACKGROUND TO PARTICIPATION EDUCATION
(Participatie Onderwijs)

COLIN TURNER
STAFF TUTOR, COOMBE LODGE

In 1969 the Government of the Netherlands faced a problem that was common to most countries of Europe. A considerable number of its youth was leaving full time education as soon as they reached the minimum statutory leaving age (then 14). These young people formed about 25 per cent of the 15-18 age group. They came predominantly from lower socio-economic class families, had attended the least academic schools, and had achieved few qualifications. They were entering working life with significant disadvantages, and mostly filled unskilled or semi-skilled low-paid jobs. About two-thirds were girls. One set of young people among these leavers were, however, in a rather better position. Those who were qualified enough to obtain apprenticeships would attend a part time vocational college for one day a week and would, in time, become qualified craftsmen.

The Dutch call all those who leave full time education the 'working youth'. This term was applied even to those who were unemployed. In 1969 considerable attention was paid to this group. A year of agitation and debate culminated in a mass meeting of working youth at the Hague. Through its spokesmen, the meeting protested at the lack of opportunity and low status afforded to working youth, and at the lack of interest of trades unions and politicians in their problems.

The Government responded by setting up the Lievegood Committee to advise it on appropriate measures to be taken to deal with working youth. This committee recommended that an educational programme should be devised that was very different from existing forms. It suggested that fundamental changes had to be made in the form of the institution, in the nature of the curriculum, and in the method of pedagogy if the working youth were to be remotivated to learning. In particular, it suggested that the curriculum should be based on the experiences of young people in their working and social life. This general approach of building a curriculum on a part time basis that grew out of the life of working youth outside the educational institution was the genesis of participation education. Much of the activity over the past decade has been directed to working out in detail and clarifying the basis of this general concept.

Working youth at that time could attend one of two kinds of institution:

1. The 26 regional colleges of vocational education (known as BBO) are provided for young people who are employed by a firm and have entered into an apprenticeship contract. (The apprenticeship system is described on pages 34.)

The point to observe at this stage is that all apprentices have to attend a BBO college for their theoretical studies for one or two days a week. These colleges typically have 1,000 - 2,000 young workers between the ages of 16-27 on roll, and employ 30-70 teachers. The teaching year, as is common in the Netherlands, is 40 weeks and the staff work up to 29 hours a week. Many work on a shorter hours contract and combine their teaching with another job. The college is run by a director, sometimes with a deputy director, and an administrator who deals with financial matters. There is no position resembling that of head of department in an English college, though staff do group in their subject disciplines. The BBO colleges have very close links with industry and commerce and express the traditions of commercial and industrial life. They have close relations with the industrial training boards and with the instructors in firms. Most of their own staff have worked in factories or offices.

2. The Vormingswerk Institutions have mainly recruited the unemployed, unskilled or semi-skilled young worker with little education background. Many of these young people have a high level of alienation against educational institutions. These colleges are typified by an open-ended, unspecific, flexible and process-oriented type of education. There are no instruction, training, examinations or certification. Much emphasis is placed on character-moulding, social and life skills, coping strategies, social and political awareness, and emotional and creative development. Activity in the institution is designed to relate to the problems the young disadvantaged worker faces in his working life. Much of the activity takes the form of open discussion. The Vormingswerk Institutions are small. They seldom have more than 150 students on roll and may have as few as 60. The students attend only one or two days a week, so in terms of full time equivalent students we are talking of institutions of 70 or less with staffs of 15 or less.

In 1971 about 30 per cent of young people left full time education at the earliest opportunity. By 1978 this proportion had dropped to a little over 10 per cent, so these institutions have declining rolls. Originally there were well over 200 but several have been closed in the past two or three years. Recent research on the student body of the Vormingswerk Institutions shows how much they have become concentrated in the most disadvantaged classes.(See paper by Arie Mens, page 24.)

Forty per cent of entrants either have no father or a father who is unemployed; another 25 per cent have a father in an unskilled job. Of male entrants, 85 per cent have no leaving certificate from their previous school and 40 per cent are

unemployed. Of female entrants, 50 per cent have no certificate and 40 per cent have no job. The Vormingswerk Institutions only take students between the ages of 16 and 19. They work from nine to five; staff work a 40-hour week.

When the Lievegoed Committee reported in 1970, it recommended that these two institutions should be merged. It suggested that all young people aged 16-18 should be treated as full time students; those who were not proceeding to the traditional routes of full time schooling should spend part of their time outside the school participating in industry or other social groups and part of their time in the newly-merged institutions. When they were participating in industry or elsewhere they would still have the status of students. The committee suggested that the school component should be worked out first and the society-component later.

In 1970 the Government suggested a time scale for implementation. In 1971 the school leaving age was to be raised to 16, and one day compulsory education was introduced for 15 year olds followed by one day for 16 year olds. From 1970-75 the integration of the two institutions should be experimentally developed. From 1975 it would be implemented throughout the country with all working youth attending as full time students. In spite of the considerable drive and enthusiasm of the then Minister of Education and Science, Jos Van Kemenade, this programme proved to be far too ambitious. Six experimental schools were set up, the school leaving age was raised to 16 in 1974/75, but the programme has slowed down. There are still six experimental schools. The BBOs and Vormingswerk Institutions are in various stages of amalgamation. Sixteen year olds have to attend schools two days a week - either BBO or Vormingswerk or an amalgamation of the two.

The problems arose partly from the overly ambitious assumption that new kinds of curriculum and methodology, new organisations and new relationships between school and society could be put together at that speed. More serious, however, were widespread disagreements over two parts of the policy. Although there was general consensus over the value of relating educational activity to work activity via participation education, there was disagreement over the full time student status of those working part time in industry or commerce. Much of the opposition came from trades unions who were concerned about the use of students as unpaid workers causing unemployment among other workers. There was also great opposition over the proposal to merge the two kinds of institutions. The arguments in favour of merger were that it substantially increased the options and experiences available to the student. The BBO courses are very specific to vocational skill training and have little of the social and life skills experimentation and question-raising that is found in the Vormingswerk Institutions. The young workers in the latter have no chance to practise and develop technical or hand skills. By amalgamating the two institutions, the pooling of resources, methods, and experience would give the young worker opportunities to choose a programme for his own needs from a far greater range of possibilities.

However, the problems were great. The two kinds of institutions were generally opposed to the merger. They were very different in ethos, tradition, aims, method, type of staff and students, so that both feared a loss of identity and of the special contribution they had been making. Industry in general, and the industrial training boards in particular, did not want vocational training for apprentices diluted by what appeared to them to be vague and unstructured programmes of general and social awareness. There was, in the early days of the Vormingswerk Institutions, a great deal of criticism - which may have been ill-founded but nevertheless had its impact - that they concentrated too much on problems of sex, drugs, and delinquency and had a 'leftist' orientation. Apart from the problems of merger arising from the differences of aim and tradition, there were practical difficulties over staff working conditions. Staff in the Vormingswerk Institutions worked much longer hours (though they did no evening work). Many of them were not, in any formal sense, trained teachers, since the concept of the institution was that the staff should not teach but aid and facilitate. Those who had qualified from the socio-pedagogic higher vocational colleges and were trained to enter social work occupations could be employed by the institutions without further training. Those who came from any other kind of occupation (and some were recruited from students within the institution)received some training in an evening course which led to recognition as trained for the job. In the BBO, however, the staff would normally carry specific qualifications to teach, and many of them possessed other higher certificates. There was, therefore, some concern about how the merging of staff would be affected by their very different educational levels and certification.

When the programme was started in 1972, there were insufficient research, development, support institutions and personnel to guide the new experiment. In 1975 Van Kemanade put forward a revised memorandum in which the concept of participation education was elaborated. A new and more modest time scale was formulated. The memorandum reaffirmed that the intention was to provide full time education up to 18, and for those in participation education institutions to spend two days a week in school between the ages of 16 and 18 and the remainder of the time in placements in industry, commerce or social/community projects. The six experimental schools would be the pilot bodies for this, working at new curricula, methodology and organisational structure. The integration of the remaining BBOs and Vormingswerk Institutions would take place over ten years, and would be divided for each institution into six phases, each with its appropriate development of resources and manpower.

So the system of participation education is in transitional stage. It is still not clear how far it will be implemented in its entirety. This depends on the political will and order of priorities of the Government. However, it must be seen against the background of the overall plan for the country's educational system. This has been outlined fully in the Ministerial Discussion Document, *Contours of a Future*

Education System, published in 1975, and has been the subject of an OECD review and report. This suggests that there will be one high school for all students aged 16 and over, consisting of:

1. A two year academic department giving direct entry into higher education.
2. A three or four-year vocational department offering training for employment in medium grade positions.
3. A two or three-year vocational department offering training for lower grade functions.

There would be two particular lines of development common to all three departments. Firstly, there would be a considerable switch from teaching to independent learning. Secondly, all departments would build upon the existing experience of participation education and develop it as a concept informing all the curriculum. Students would thus integrate work outside the school - in industry and in social and family life - with work in the school. The aim would be to have all three departments in one school, but it is accepted that in practice it would not always be possible. The Memorandum suggests that there must always be at least two. If there are two vocational streams they must be formally linked to a high school with an academic stream in the same area.

The Contours Memorandum has only the status of a discussion document and its proposals are in the process of revision (though some have already been implemented). Although the philosophy behind the long-term plan is clearly articulated, parts of the plan - including the division into three departments in the school - were substantially modified in the Contours Memorandum II in 1977.

THE INSTITUTIONAL NETWORK OF PARTICIPATION EDUCATION

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The decision to experiment with new forms of participation education was assumed to include experiments in new ways of getting the apprenticeship schools and the Vormingswerk Institutions to cooperate. If the experiments were successful it was assumed that institutes would be transformed by the application of developed and validated ideas when institutions were merged.

The Ministry's intentions were clear. They invited institutions or consortia of institutions to take part in the experiments. About 30 proposals were received; six were selected for further development. Local management committees amended where necessary and more detailed plans were developed.

The Ministry, in addition to its control over the initial approval of plans, exercises control and scrutiny over developing projects by its approval of each annual plan and control of the annual budget of each institution. The annual plan for each school must describe the intended teaching programmes, staff needs, and all details of the budget. And it must go further. It must explain, describe and justify requests for extra teacher support for programme development; it must explain how it is to cope with teacher skill development, with organisational development and with research and evaluation. Careful attention is paid in experimental schools to the way in which they will use extra staff and how external support agencies will contribute. Since each experimental scheme is different and has developed different approaches, the decisions vary considerably. This produces a great quantity of documented proposals and a mass of activity for evaluation and follow-up.

The Minister has established a series of *Innovation Commissions* (ICP) to assist him. Each deals with a specific sector of participation education. (Participation education is a concept that is to be applied to all education sectors, although this report is concerned only with the BBO and VW sections.) The Innovation Commissions have three functions:

(a) To provide independent comment on annual proposals to the Minister.

(b) To assist in project evaluation as an independent agency.

(c) To develop and use materials which will assist in disseminating approved, evaluated innovations.

The commissions vary in size but most consist of about ten

members (seven full time equivalent) acting as a committee with a nominated chairman. Their influence over the annual proposals appears to be considerable and detailed (although technically the Minister is the authority). We hear, for example, of the annual proposals for one school being returned for amendment because its evaluation specification contained mainly 'process measures' and not enough measures of 'learning objectives achieved'. This school contacted the ICP for advice on what they wanted added.

To help achieve adequate comparative evaluation, members of ICP scanned a wide range of literature and conducted study tours of North East USA, Scandinavia and England. They take part in teacher education and teachers' conferences. They also develop publicity materials including video tapes and films to show the way in which participation education can be and is being achieved in the classroom.

ONE PARTICIPATION EDUCATION INSTITUTION: TUINDORPSCHOOL, HENGELO

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Hengelo, an industrial town situated in the east of the country not far from the German border, has a population of about 70,000. The institution for participation education (it eschews the title 'school' or 'college') is a few minutes' walk from the town centre on the junction of two busy roads. It is in a refurbished school building not unlike an English primary school. There is also a BBO college and Vormingswerk Institution in the town.

The institution is small. There are 80 students, ages 16-18, and a staff of 15. Its smallness is a deliberate act of policy. All students are full time, working partly in the institution and partly in placements outside. Thus it is a prototype of the institutions of participative education envisaged in the 1975 memorandum. No students can be on apprenticeships, for then they would come under the control of the firm and the training board. Several work at subjects which will enable them to attend full time vocational colleges or go to a BBO college with an apprenticeship in the future.

The staff and the governing committee believe that if the institution's roll is kept at 80, they can experiment and explore ways in which curricula can be developed which integrate outside experience with school work, and which lie within the ability and motivational interest range of the student. The staff have put a lot of work into devising learning methods and new programmes which exploit placement experience. They have comparatively little interest in structural problems of the merging of institutions which have been a major concern of many others involved in participation education.

More applications are received than can be accepted if the figure is to be kept at about 80. The institution publicises its activities by having staff visit feeder schools and talk to potential students, by sending information on its programmes to schools, and by meeting the schools' careers advisory teachers. Because of over-subscription, the institution has to interview and select. Its aim is to have a heterogeneous entry from various kinds of schools,various socio-economic backgrounds, and various degrees of attainment. It wants to avoid picking all the best or all the worst, however defined. The institution also tries to avoid accepting students who are marking time before going on to a college for which they already have been or are likely to be accepted. Those students who are not chosen, and do not wish or cannot attend another full time college, can attend one of the part time institutions in the town - either a BBO or Vormingswerk Institution. The institution appears to have relatively little trouble with its students. Absence rates

are negligible, though in Vormingswerk Institutions they are high - 20-25 per cent of school leavers never register, and a further 25-30 per cent only attend occasionally.

All students attend on Mondays and Fridays when the integrated core programme is presented. This covers four areas which all students experience: physical activity and games; creative arts; a mixed course of numeracy, basic science and fabrication or handicraft; and social skills. On the three mid-week days, students are placed in factories, shops, offices, hospitals, community centres, and infant schools. Placements normally last six to eight weeks, and students can return to the same placement or ask for another kind of work. It is important that the student is reasonably happy with the placement, and that the staff are convinced that the student will be involved in useful activities, as varied as possible, which can form the basis of his work in the institution. So considerable effort is put into acquiring placements and developing an understanding relationship with the firms involved. Activities outside the institution are in the middle of the week so that Monday can be used for looking ahead to, and Friday used to look back on, the week's work. Each student works in a group of 15 to which a tutor is assigned. The tutor and the member of staff responsible for placements review the progress of each student one a week.

When students are not on placements, they use the middle three days of the week to pursue specific skill learning. For example, a student may wish to reach a certain standard to enter an advanced full time college, or may wish to learn to type. Options are provided within the limits of resources available. Students can take examinations externally, should they wish, but there is no certification provided by the institution.

The staff works as a very undifferentiated group. One member is head of the institution and is referred to as the project leader (on the basis that the institution is an experimental project), but obvious signs of hierarchy are almost completely absent. One or two staff have special functions, such as responsibility for negotiating placements, but to an outsider the lack of differentiation is striking.

The staff prepare and work to a four year plan which gives in outline the programmes which will form the basis of the innovations and experimental projects for which the institution was created. Each year a more detailed plan is also prepared. These two plans are submitted to the Ministry of Education and Science for approval and resources. They are submitted by the managing board which is the legal representation of the institution. The board has representatives from the BBO and Vormingswerk Institutions as the two parent bodies of the institution, plus two members of its own staff and up to five representing local interests such as industry, the trades unions, etc.

The year plan is accompanied by a review of experimental programmes conducted in the previous year. In the process of evaluation, innovation and implementation, the institution is

helped by the relevant research institution. The institution can also have help and advice from SUS (see appendix I page 47) but because that body has concentrated until recently on organisational problems related to merger, the Hengelo Institution has made little use of its services.

The staff do not see their role as that of teachers in the ordinary sense of the word. They see themselves as companions or helpers. Most have been recruited from Vormingswerk Institutions, though some come from other kinds of schools. They all have their specialisms (for example, the project leader is a physicist), but they have to operate across subject boundaries and within the total breadth of particular projects.

Because of the nature of independent or student-centred learning, all staff have to adapt to the parameters of the individual student's interests within his programme at any one time. Staff are appointed by the managing board, but much of the selection process is in the hands of the staff themselves. As an experimental institution it has extra staff for the purposes of innovation and development, but it has not differentiated them from others. All staff perform roughly the same basic functions.

THE GREEN SCHOOL, AMSTERDAM

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The Green School in Amsterdam was established about 11 years ago. Since the initiation of the participation education experiment, it has been more firmly placed in the experimental schools programme. It now takes in 100 students a year on its only scheme, a full time one. It is housed in an old,unattractive building opposite working warehouses on a dockside. The buildings had housed a school for the mentally handicapped. They have been intelligently adapted for their new use. A new gymnasium and sports hall have been added in the old back yard.

The new programme is specifically designed for young people over the minimum leaving age who have been resistent to school. At entry they have poor or no qualifications, no clear job orientation, but are under parental pressure to continue with some sort of education. The school operates with an apparently informal attitude to dress and relationships between staff and students, but there is actually a fairly tight discipline emerging with the small 'family' groups of the school. Each student is placed in a group of 16 and spends much of the week in that group, in the group room. The basic approach is to give a close personal and social identity and location to the young person.

The basis of the curriculum is that each person spends Monday and Tuesday at work-placement. They have five placements (one four-week; four eight-week) in the course of the year - arranged as much as possible to the interests of the students. The young person must work at the placement on real, normal work. The school has acquired about 200 work locations and has rejected only two as being unsatisfactory by their standards. The foremen or shop supervisors come to the Green School and discuss the purpose of placements. They receive return visits by school staff before any placement occurs. Each student is taken personally by his group tutor to the placement and introduced. A meeting of group tutor, placement supervisor, and student takes place at the end of the placement. Wherever possible wages are paid to the school (some agencies are unable to pay). The money is divided equally and given to the students as pocket money.

The starting point of the group work on Wednesday morning is a discussion in the group of 16 of the experience of the work-placement with group supervisors. Most of the group rooms are almost cube shaped and have a gallery with benches around a hexagon-like shape, approached by a circular staircase from the main floor. Group discussions take place in this private,

secure space. The group tutors insist that all are present before the work starts. This introduces an air of discipline and purpose. Tutors have been know to despatch a student on a bike to fetch a late riser before discussions are allowed to begin. Friday afternoon is spent discussing what is to be learnt at the next week's placement. The open work spaces of the main room floor are used the rest of the week.

On Thursdays there are optional classes, often with a craft programme. There are also basic classes in Dutch and mathematics. A main programme of social, political and work education holds the rest of the week together. The development of this programme and teaching on it is very demanding. It is clear that the school has developed its own ethos of total involvement. The demands of working so closely with the students and of developing a meaningful programme can only be understood, the staff feel, from participation. Attempts to work with outside development agencies for development or evaluation have not worked well. Evaluation is done by staff attached to the Green School. They have established two ground rules:

1. Every staff member is involved in the formulation of the programme.
2. All development staff have to teach.

The ethos for staff and students is that real growth comes from a group discussion of the daily experience.

Within the weekly programme there are opportunities to use visitors from the Amsterdam Union of the Unemployed, previous students, trades unionists, and socialists. This distinctive 'working class' orientation comes in part from the students. It appears to cause few problems with the locally appointed board of management. Speakers for more 'official' viewpoints have not been very warmly received.

The school team devises its teaching programme in a group way and have incorporated some extra staff for the evaluation processes. They have accepted responsibility for writing formal reports and the annual plan. These are formally presented to the Ministry by the board of management who have confidence in their staff. When a director was appointed, the staff team was represented in the selection process. The staff was active in writing and defining the character of the job description in accordance with the 'ground rules' mentioned above.

The staff are young and come from a variety of backgrounds, such as social work and Vormingswerk. None of them comes from the more traditional academic or BO lines. This variety of experience and a feeling of commitment to the non-academic, non-skilled lives of the young is regarded by the staff as the key to their school's success. Some ex-pupils enter apprenticeship, some go on to full time education, some acquire unskilled work, and some become unemployed; but the staff feel that they are all more self-confident, articulate, and self-aware at the end of the programme.

THE OPERATION OF PARTIAL COMPULSORY EDUCATION IN THE NETHERLANDS

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This paper outlines the known effects of a decision by the Dutch Government to introduce a statutory requirement that young people who leave full time education after ten years must participate in a special form of part time education two days a week for one year. Partial compulsory education (PCE) was introduced as a measure related to the problem of young people wishing to leave full time education and enter the labour market.

The first goal of PCE was to ensure a smooth transition from school to work for a specific group of young people. Those starting work at a young age must continue attending school two days a week. In that way, a counter-balance can be offered to three days a week of employment and a contribution made towards better preparation for and guidance in participation in society as a whole.

At the beginning of the 1970s, PCE was considered a transitory phase between eight-year compulsory education and the achievement of twelve-year compulsory education. The latter could be achieved by way of a number of phases in which the compulsory age and the compulsory number of days a week could be increased.

As a result of, among other things, the worsened economic situation and a change in educational insights, other ideas are now being voiced. PCE is now looked upon as a permanent alternative to participation in full time education. In addition, more than two days a week of school attendance is not considered desirable in PCE (based, among other things, upon industrial-organisational considerations).

PCE is the object of intense debate in the Netherlands. The frame-work for this debate is formed in particular by general points of view with respect to the extension of compulsory education, i.e. the raising of the school-leaving age. The following points are some of those made.

- If a certain age group participates in full time education on an almost entirely voluntary basis, it is necessary to make this participation compulsory in order to prevent the development of residual groups.
- An extension of compulsory education is the best means of compelling the government to create good educational facilities.
- Emphasis upon the extension of compulsory education

to reduce unemployment (more teachers will be needed; there will be less youth unemployed) is misplaced. An extension of compulsory education should be based upon educational considerations.

- An extension of compulsory education should be introduced only when the adequate educational facilities exist, offering training opportunities of value to the groups of young people involved.
- A further extension of compulsory education is not a good means of creating equal chances. Recurrent education is far more suitable.
- It seems peculiar, on the one hand, to compel young people to attend school for a longer period of time, whilst on the other wishing to grant them, in many respects, more freedom.

The most important goal of PCE is to offer preparation, guidance and support to young people in their new roles as employees. Aside from this, there is a group of young people who want to combine study and work or - often more realistically - who decidedly wish to go to work or do not wish to attend school on a full time basis anymore.

THE TARGET-GROUP OF PCE

The commonest means of meeting PCE-requirements is through full time education. When this path is not taken, there are alternatives within the context of special facilities at which pupils attend school two days a week.

Table 1 shows the developments in participation by 16-year olds in full time education.

Table 1 DEVELOPMENTS IN PARTICIPATION IN FULL TIME DAY EDUCATION BY 16 YEAR OLDS IN PERCENTAGES OF THE GROUP*

year	male	female
1970/71 (actual)	68.4	52.3
1972/73 "	75.8	61.3
1974/75 "	80.8	70.0
1976/77 "	89.7	83.4
1978/79 (prognosis)	93.0	88.4
1980/81 "	95.9	92.7
1982/83 "	98.5	95.1

* Source: Working Group Prognosis for Participants in PCE, The Hague, March 1978.

In the period 1970-77 the number of 16 year olds no longer attending school on a full time basis dropped drastically. For the boys, the reduction was from about 30 per cent to 10 per cent of the year-group: For the girls the reduction was from 50 per cent to 15 per cent.

The prognoses indicate that this drop will continue. If policy remains unchanged and the trend continues, there will remain only an insignificant number of 16 year olds not attending school on a full time basis in the 1980s. In 1982/83, about 4,600 11th-year boys will still belong to this group and about 12,800 girls. In 1976, these figures were about 21,500 boys and 32,100 girls.

The development has many causes which we cannot deal with in this connection. Only two groups of factors will be mentioned: viz. an economic situation in which young people are discouraged from entering the labour-market prematurely and/or with little or no qualifications; and changes in the educational system, viz. lengthening of the duration of many training programmes.

The group of young peop'e having to meet PCE-requirements outside full time education is not a cross-section of the age group as a whole. A number of characteristics of this group is included in Table 2:

Table 2 SEVERAL CHARACTERISTICS OF 11TH YEAR PUPILS NOT PARTICIPATING IN FULL TIME EDUCATION, IN PERCENTAGES*

	boys	girls
Possession of secondary school certificate:		
1. SGE**	4.9	10.9
2. EVT**	30.9	36.9
3. No certificate	64.2	52.1
Employment:		
1. Employed	78.5	70.5
2. Unemployed	21.0	29.5
Social origin:		
1. No (working) father	40.2	39.1
2. Un-/semi-skilled labourer	26.1	25.2
3. Skilled labourer, lower level employee, small trades people	21.1	27.8
4. Other	12.6	7.9

* Figures drawn from Working Young People's Investigation, data collected in the school year 1976/77

** For list of abbreviations see page 33.

From this table, it appears that a majority of these young people do not have a secondary school certificate. They are drop-outs. In by far most of the cases, those having a certificate received it at elementary vocational training schools, where pupils are trained for occupations at the level of manual labourer or lower-level employee.

20 per cent of the boys and 30 per cent of the girls are unemployed. Those employed perform mostly unskilled or semi-skilled labour. About 40 per cent come from families in which the father is not working (unemployed or incapacitated) or in which there is no father. About 25 per cent of the fathers perform unskilled labour and 25 per cent perform work at a level just above that.

These data show that the group has a lop-sided composition as regards training, employment and social origin. With respect to all these essential data we are confronted with high vulnerability: training is low-level, unemployment is high, and the social environment is poor.

Obviously, these circumstances have great consequences for the possibilities PCE-facilities have open to them.

TYPES OF EDUCATION MEETING PCE-REQUIREMENTS

As mentioned in the last section, the commonest means of meeting PCE-requirements is through full time education. Table 1 even indicates that in the not too distant future, there will remain hardly any young people meeting these requirements through special training programmes and courses. In 1976/77, the year upon which the data in this paper are based, these educational facilities were still significant.

Four types of PCE-facilities of this type can be distinguished:

1. Young Workers' General Education (YWGE)
2. In-service Vocational Training (IVT)
3. Designated education institutes
4. Recognised courses organised by trade and industry

The first two types are the most important.

1. In general, YWGE offers no vocational training. The vocational preparation is of an exclusively general nature. In YWGE, the desire is to offer pupils the opportunity to develop personally and socially.

   Work in groups, and not traditional educational methods, is used, in which staff function as assistants rather than as teachers. For participants in YWGE, there are no training pre-requisites.

2. In IVT, a direct relation is laid between the content of the course and the pupils' vocation. Very often there are study-contracts with the employers, which stipulate that at work specific

attention is paid to vocational training. Often there are training pre-requisites for participants. In that case, they must have an elementary vocational training school certificate.

3. The third type consists of a variety of possibilities. In this category are, firstly, participatory-education experiments and the co-operative projects between YWGE and IVT. Further, in particular, night-schools for secondary general education - lower level, and secondary technical education - lower level.

4. The fourth category (recognised courses organised by trade and industry) consists primarily of in-service training for vocations in the nursing field.

These four types differ greatly. This applies not only to the nature of the training-programme but also to the extent to which they are directed towards PCE-pupils. Table 3 gives an extremely clear picture of this second point.

Table 3 GLOBAL SUMMARY, ACCORDING TO AGE, OF A NUMBER OF KINDS OF EDUCATIONAL INSTITUTIONS THROUGH WHICH PCE-REQUIREMENTS CAN BE MET.*

	Percentage of 11th year pupils		Percentage of 19 year olds and older		Total (in 1976)	
	boys	girls	boys	girls	boys	girls
YWGE	70	85	10	5	10,327	12,169
IVT	15	60	50	10	56,158	11,994
designated/ recognised	unknown		85	70	10,770	21,249

* see Table 1

For the most part by far, YWGE is involved with PCE-pupils. A reduction in the number of PCE-pupils not attending school on a full time basis should have, indeed, great repercussions for this type of educational institution.

In IVT, which attracts boys in particular, the percentage of female PCE-pupils is very small. For the most part by far, IVT is an educational institution which is directed towards pupils no longer subject to PCE and is therefore far less vulnerable to reductions in their number. This applies to an even greater extent to designated or recognised courses.

There are important developments at hand in the entire area of educational facilities for working young people. Just mentioned were participatory-educational experiments, in which attention is paid to both general social development and vocational training, and to a guided introduction to

occupational practices. These experiments have existed for many years. Recently, the government have been promoting cooperation between YWGE and IVT at the regional level. The latest development is the involvement of (day) schools for elementary vocational training and secondary vocational training - lower level in this co-operative effort.

PROCEDURES WITHIN THE FRAMEWORK OF PCE

The most important regulations relate to three areas, viz. registration, exemptions and the supervision of compliance.

- The parents are responsible for registration.
- The pupil is required to attend school regularly.
- Under the Labour Act of 1919, the employer is obliged to arrange for course attendance.
- Schools must report registrations and withdrawals to the municipality in which they are situated.
- If the child does not attend school in the municipality where it lives, this information must then be forwarded to the latter.
- Exemptions from PCE are possible. The most important grounds are a medical certificate of physical or mental incapacity and a decisive objection by the parents to the ideology of the school or schools at a reasonable distance from their home.
- The burgomaster and aldermen of the municipality are charged with the superintendence of compliance to compulsory education. Compulsory education (CE-) officers are in charge of the actual operation. If the parents have not registered a child to whom PCE applies, and no exemption has been granted, the CE-officer contacts the parents. In cases of persistence, he issues a warrant tendered to the public prospecutor. The statutory fines are relatively low. Unlawful absence of more than three days must be reported by the schoolmaster to the municipality. The CE-officer must try to prevail upon the child. He does not, however, have disciplinary sanctions at his disposal as this is not considered consistent with an educational approach. In case of contravention of the labour prohibition, the CE-officer must call in the labour inspector.
- The government give a so-called PCE stimulant premium to employers employing PCE-pupils registered at educational institutions designated for PCE. This measure is of a temporary nature and is intended to accommodate employers for whom PCE can be a serious inconvenience so long as they are unaccustomed to the situation.

THE OPERATION OF PCE

In 1976, an investigation of PCE was conducted by the Association of Dutch Municipalities (VNG). The investigation concerned the experiences and opinions of the municipalities which play an important role in PCE.

The most important results for our purposes can be summarised as follows:

1. Difficulties

   In a large number of cases, the municipalities experience difficulties in meeting their obligation resulting from PCE. The problems involve registration (because necessary information is made available too late or not at all); judicial action, which is hardly effective in preventing or correcting contraventions; and difficulties in preventing absenteeism.

2. Evasion of PCE

   It is clear that the problem of evasion is very great. Half of the group to which PCE applies either comply insufficiently to the requirements or do not comply at all.

3. Differences between several types of part time education

   Of registered PCE-pupils, approximately 37 per cent of the boys and approximately 56 per cent of the girls go to a YWGE-institute, 42 per cent of the boys and 32 per cent of the girls to IVT-schools, 16 per cent of the boys and 4 per cent of the girls to a combination of the two (in particular a day-time YWGE-institute and a day-time IVT-school) and 4 per cent of the boys and 8 per cent of the girls attend one of the remaining designated or recognised training courses.

   A majority of PCE girls, therefore, go to a YWGE-institute, whereas boys are registered as often at YWGE-institutes as at IVT-schools or both.

   It appears that there are considerable differences between the two types of schools. Most noticeable is that a majority of pupils at IVT-schools have a certificate, whereas this is not the case at YWGE-institutes.

   The social origins of participants in YWGE are, on the average, on a lower level than those of IVT participants. Of the former, about 75 per cent belong to the two lowest categories, whereas this applies to only 50-55 per cent of the latter. Further, nearly 35 per cent of YWGE participants are unemployed, whereas about 15 per cent of IVT pupils are out of work.

   With respect to each of the basic data reported, the composition of the IVT group is more favourable. This applies for social class, level of previous schooling and employment.

YWGE has to work with a group whose composition is the most problematic. Relatively speaking, IVT is in a more favourable position.

4. The opinions of PCE-pupils themselves

The opinions of complete evaders are not reported; insofar as they apply, they are obviously even more negative.

About 60 per cent of the 11th-year pupils would not attend PCE if it were not compulsory. They would have started working. About 65 per cent of the 11th-year pupils are against extending PCE to a day a week for 12th-year pupils (only 25 per cent is for such an extension).

The opinions of YWGE-participants are less favourable than those of IVT-pupils. Furthermore, it appears that YWGE-pupils are less satisfied with the value of the type of institution they attend than IVT-pupils.

In general, there is a negative attitude towards PCE and the types of educational institutions at which PCE-requirements can be met.

5. Regional differences

There are great differences between various regions of the country. National data may therefore not be applied automatically to lower-level units.

We have conducted research in regions which differ strongly as to demographic and socio-economic characteristics and as to educational facilities and participation.

PCE takes on a widely differing aspect in different regions. This applies to the size of the target-group as well as to evasion of PCE and to the type of part time institutions at which PCE-requirements are met. This also applies to the more general characeristics, such as percentage of certificate-holders, employment and social origin. In the main, the three last-mentioned characteristics run parallel to global regional characteristics, in particular to the unemployment figures.

CONCLUSIONS

The purpose of the project, of which this study forms part, was not only to examine several measures pertinent to the transition from school to work, but also to infer the effectiveness of the policy from which these measures have been derived.

It is impossible to make a comparison between the aim of policy measures and their effects. However, a number of suggestions can be made as to the intended but real consequences of a policy measure, once it has been taken.

For example, what are we to think of the intention 'to offer preparation, guidance and support to these young people in

their new roles as employees' and the percentages of young people, compelled to use PCE institutions as alternative to work? And, what are we to think of the value young people attach to PCE in view of their future chance on the labour market?

'Preparation, guidance and support' get a special significance in this context. These words could be interpreted rather cynically. Is this equivalent to saying that the PCE-measures have proved ineffective? Or that, in other words, other effects have been reached than those originally intended? This seems at least partly undeniable.

It could move the author of this paper to conclude that the effectiveness of government policy in itself is an ambivalent concept, yet to be elucidated. Another conclusion, somewhat less theoretical but as pertinent, should be that, apart from the ambivalence of the purpose of government policy, also the effects of the policy (in so far as they can be considered effects, for other - some of them uncontrollable - factors influence the ultimate results) may be considered as ambivalent or at least pointing to different directions.

Anyone willing to investigate the effectiveness of government policies on a given item (e.g. PCE) would certainly have to substitute for reality, complex as it is, a given set of aims as a hypothesis about the direction of policy. Secondly, he would have to single out from the reality of given consequences a workable set of phenomena which could be compared with the set of aims hypothesized above.

This does not mean that we should be disappointed with the net result of this study. It may be considered as a 'pilot study' for the project of which it forms part.

Furthermore, it contains remarks about a policy of evolution: a policy which, as far as we are concerned, is a unique government contribution to the easing of the transition from school to work for some of the least advantaged members of our society.

LIST OF ABBREVIATIONS

SGE	Secondary General Education (AVO - algemeen vormend onderwijs)
SGE lower level	Secondary General Education lower level (MAVO - middelbaar algemeen voortgezet onderwijs)
SGE higher level	Secondary General Education higher level (HAVO - hoger algemeen voortgezet onderwijs on VWO - voorbereidend wetenschappelijk onderwijs)
Pupils in PCE	Pupils in Partial Compulsory Education (partieel leerplichtigen)
YWGE	Young Workers' General Education (VJW - Vormingswerk Werkende Jongeren)
EVT	Elementary Vocational Training (LBO - Lager Beroepsonderwijs)
IVT	In-service Vocational Training (Beroepsbegeleidend Onderwijs)

INDUSTRIAL TRAINING AND APPRENTICESHIP IN THE NETHERLANDS

COLIN TURNER
STAFF TUTOR, COOMBE LODGE

The apprenticeship system in the Netherlands is complicated. Four separate bodies are concerned: The company with its training instructor, the part time vocational college (known as the regional college), the regional adviser, and the training boards with their training officers. A training agreement is subscribed by the employer, the parent or guardian of the apprentice, the regional board and the relevant training board. The college takes no part.

Primary apprenticeships last two years, though there is an agreement in progress that they should be extended to three years. For many vocations it is possible to take an advanced apprenticeship for a further one or two years. There are about 400 trades for which apprenticeship training schemes are provided. Entrants normally require a leaving certificate from the lower technical school.

The division of responsibilities between the various agencies is as follows:-

The regional colleges are responsible for the theoretical part of education and the worker is released one day a week for this. The principals of the colleges meet in an organisation called the educational board (COBO). There they exchange experiences with respect to educational methods, curricula, school organisation and so on. They have a staff with facilities for teacher training programmes and other similar work. There are about 30 regional colleges, each with about 1500 - 2000 students.

The Industry Training Foundation Board is responsible for the practical part of training and examinations. Training officers of the training boards visit the companies regularly, advising the firms' instructors and checking whether the trainees are trained according to the training programme. They also control the apprentices' workbook.

The regional adviser, employed by one of the 14 regional bodies, is a specialist in social education. He becomes involved in cases of personal troubles of young workers, when he will talk to parents and others concerned. He also liaises with the lecturers in the colleges.

The industrial and commercial firms provide practical training in accordance with the prescribed programme. Although subsidised by the state, they carry most of the cost. There is no recovery system, so firms that do not provide training get the benefit of recruiting skilled men trained at other firms' expense.

Training boards are charged with organising examinations and awards. Their examination committees are composed of lecturers of regional colleges and technical engineers from industry and commerce. In some cases trade union and other representatives from the community are included. New training programmes and basic curricula are devised by such committees.

There are 37 training boards in the Netherlands. Each is concerned with a group of specific vocations, but for joint interests they combine in the Central Organisation of Training Boards (COLO). For all apprenticeship activities, training boards - like the colleges - are state-aided by the Ministry of Education and Science. Their boards contain representatives from employer organisations, the trade unions and the corporations of vocational college organisations.

THE WORK OF ONE TRAINING BOARD - THE VEV

The oldest training board is the Electrical Engineering Training Board (VEV) which was founded in 1916 when, during the replacement of gas lighting by electrical lighting, there was found to be a shortage of experienced electrical craftsmen.

Most training boards were founded around 1950 when the apprenticeship system was revised and improved. Two new training boards were recently set up for the economical and administrative professions and for the retail trade.

Well trained electrical mechanics were greatly needed in the electrical plants and distributing offices. As there were no training facilities whatsoever on this level in this field, the managements of these plants and distributing offices decided to train craftsmen and set up an association which was called VEV.

Nowadays, the approximately 200 members of the association represent the industry, the generating and supply industry boards, the Union of Installers, trades unions, technical colleges, and individuals who take an interest in this form of education. The board of the association consists of executives of the two Dutch federations of industry, executives of the trades unions and representatives of technical college boards.

The central administration office of VEV is responsible for the implementation of the resolutions of its board. These

resolutions are, in practice, initiated and prepared by the central administration office. The central office comprises nearly 70 employees including 32 training advisors. The management team consists of a managing director, a vice director, and four senior staff members who are heads of the main departments. The rest of the personnel is engaged with organisation, administration, development, preparation and reproduction of subject matter used in various education and training activities, examinations, information services, financial administration, exhibitions and fairs, etc.

From the start of its activities in 1916, VEV has not only taken care of training but has also organised examinations and awarded certificates. For a long time VEV remained a private institution, not dependent upon financial support from the government.

During its first 15 - 20 years, VEV was only concerned with training in power current techniques. When the need for well trained mechanics in other electrical branches became more urgent, training possibilities were opened in the telecommunication sector. Later they added electronics and radio and television techniques.

Evening courses were set up in which both theoretical and practical training was given. VEV developed curricula, organised examinations and awarded certificates to successful candidates. These examinations were not only supervised by the (public) electricity undertakings concerned, they were also controlled by an official delegate appointed by the government.

In the early 40s the vocational training of young people in the electrical industry was legally arranged by the Dutch government by means of the apprenticeship system, VEV being the institution which gave guidance during the training of pupils and organised examinations. Thus, for these activities, VEV became state aided. During their practical training in factories or on sites, trainees were guided by training officers who were employed by VEV and paid by the Dutch government. Theoretical training was given in regional colleges. Practical as well as theoretical examinations were organised and held by VEV. VEV became an institution that is independent for 85 per cent of its activities, but receives state aid for other aspects of its work.

In co-operation with other countries in the European Economic Community, VEV contributes to evaluation of different training schemes. These efforts have been made to attain a harmonisation of the ultimate level of vocational training systems and a mutual recognition of the certificates granted by these countries. In this field of international co-operation only the first steps have been taken, much work remains to be done.

Education and Training

Craft training is now possible for nine different vocations under the apprenticeship system. Practical training takes

place in workshops under the supervision of VEV training advisors, while theoretical education is given in technical colleges in accordance with programmes drawn up by VEV and approved by the Dutch government. Examinations are organised and held by VEV which also awards certificates to successful candidates.

At this level of craftsmen, training is possible for the following nine vocations:-

1. Electrical installing
2. Electrical winding
3. Supply and distribution networks
4. Installing and maintenance of electrical plants in industry
5. Wiring of electrical devices
6. Installation and maintenance of electrical systems for aircraft
7. Telecommunication techniques (radio)
8. Telecommunication techniques (electronics)
9. Telecommunication techniques (telephone, telegraphy and electronics).

Since August 1972 an adapted training arrangement has been possible for those pupils who have more practical than theoretical abilities and who are employed by companies that install low tension equipment in large apartment buildings, work that requires much repetitive activity.

Until now VEV has been responsible for holding examinations in this field without financial support from the government. In 1974, for the first time, these examinations were organised under the supervision of the state aided section of VEV.

As well as these elementary training systems VEV also provides opportunities for post-elementary training for the following five vocations, at technician level:-

1. Heavy current installations
2. Maintenance of AC/DC installations
3. Industrial electronics
4. Television-radio repair
5. Telecommunication techniques.

Arrangements for technician training are similar to those for craftsmen.

After successful completion of the training period for technicians, VEV offers two possibilities for advanced training. One is in the field of planning design and estimating the installation of electrical equipment, i.e. for electrical contractors. The other is in the field of repair of radio and television equipment. Both training possibilities usually take two years before the candidate can take his examination, but this may be reduced to one year in the future.

The first type of training culminates in an examination which is part theoretical, part practical (drawing); the second ends with a theoretical and practical (fault finding) examination.

Holders of both certificates comply with the terms required by law for the establishment of repair shops and firms in these fields.

For the benefit of those who are employed in electric or electronic sales departments of large department stores VEV assists in giving training opportunities and organising examinations once a year. These certificates are officially recognised and required by law for the establishment of retail stores, with additional examinations in book-keeping management.

Curriculum Development

The training syllabuses for vocations, for which there is primary, continued and advanced training under the auspices of VEV are drawn up by VEV. In VEV training programme committees, experts from the industry and senior members of the overhead organisation of technical colleges are working closely with members of the VEV staff when setting up a new programme. They take into account the applicable know-how, new technical developments, the needs and requirements of the industry, etc.

The final syllabuses, one for each vocation, will be submitted by VEV to the Minister of Education for acceptance and publication in the Government Gazette. These training programmes consist of two parts:

(i) The first details the contents of the practical training for each specific vocation and is to be used as the programme by the industry;

(ii) The second contains detailed subjects of the theoretical education which has to be given at the technical colleges (headline syllabus).

In order that all students for a primary apprenticeship are given determined theoretical education and come up to government requirements with respect to the average number of students per class (16), it has been decided that this part should be identical for all craftsmen syllabuses. Programmes for technicians' vocations and mid-level professions have been or will be set up in a similar way. All programmes are continuously under consideration in order to keep them up to date.

The development and production of subject matter for practical training is assigned to VEV on a non-profit basis. These training manuals contain typical "vocation tied" practical and technical subjects divided into 30 - 35 tasks. These topics have to be studied and worked out (one per week) by the apprentice under the guidance of an industrial instructor and under the supervision of the VEV training officer. Programmes, examination regulations and examination papers of recent years are also part of the training manuals.

To give technical colleges, lecturers, vocational teachers and students more than just a programme for theoretical education, VEV has developed in co-operation with a publisher (Stam

Ltd) a complete set of technical text-books. While colleges and lecturers have unlimited freedom in choosing from the available text-books, this VEV technical series is strongly recommended.

Examinations

Some 8,000 - 10,000 candidates sit each year for an examination organised and held by VEV. At the end of a two-year training scheme for craftsmen, theoretical and practical examination are organised and held by VEV. A "Craftsman" certificate is awarded to successful candidates. This certificate, like all the others granted by VEV, is officially recognised and is very much in demand in the Dutch electrical industry.

Like the examinations for craftsmen, the examinations for technicians consist of a theoretical and a practical part. The examinations and award of the certificate is the responsibility of the subsidized part of VEV.

VEV has been officially appointed by the Dutch government to test people who have to prove their professional skill in order to meet the requirements of Dutch law for the establishment of retail stores or trades in the electrical field, including a manager's examination. Activities attached to the organisation of the examinations are executed by the examination department. This department consists of two divisions, one of which is charged with the technical part, the other with the administrative part of the examinations.

The technical side deals with preparation and evaluation of papers for written examinations as well as for practical tests. To that end a number of committees have been formed. These committees, consisting of representatives of industry and technical colleges, require approval by the Dutch government and their members are appointed annually. The other division handles the extensive administration attached to the organisation of the examinations - registration of the candidates, grouping them, drawing up schemes and regulations, appointing examiners, fixing timetables, ensuring that official delegates are appointed by the Minister of Education, typing out marking lists and certificates, and seeing that they are handed out or sent to the successful candidates, and completing the register of successful candidates.

The examination department compiles an annual report on results scored by all candidates. This report serves as an official document of the Dutch government. The examinations department also compares VEV's own certificates with those granted by other institutions, schools and colleges - nationally and internationally - in view of possible mutual recognition.

VOCATIONAL PREPARATION IN HOLLAND

This paper is an edited version of an article printed in EDUCA, October 1978, in which the magazine investigated the Dutch system of vocational education for the 14-16 age group, with particular reference to proposals make by the English Engineering Industry Training Board in their Information Paper 49. The problem raised in that paper was that of trying to achieve a qualified apprenticeship in less time. Its implications included that a significant part of basic technical knowledge would have to be conducted as part of general education within the English school system.

In educational terms Holland feels more like Scotland than England: the size of the country; the compactness of the main areas of population; the reverence of academic performance; the tendency towards central control; and the faith placed in external examinations.

Of course there are differences, including:

- A relatively new industrial base.
- A tradition of full time (rather than part time) technical education.
- A teaching force which is well-paid but, as here, threatened with demographic decline.
- The division of most school and technical education institutions into three types: Catholic, Protestant and Public, but with the central government providing the finance, and approving the curriculum.
- The respectability of educational publishers (perhaps because they have for a long time competed on the basis of quality of production).
- And, above all, the structure of education is very different! (See "An Outline of the Dutch System of Education", page 3.)

Within this system EDUCA focussed on an engineering biased LBO (four year lower vocational technical school) as it provided the nearest parallel to the Engineering Industry Training Board proposals in Information Paper 49. The one visited was a Catholic school at Haarlem, a prosperous town in the main industrial belt. The school has about 140 boys (no girls were in the school at all) in the final year. Its four year course is comprised of:

- A one year 'bridge' with the theoretical chance of transfer to a MAVO at the end.

- A one year 'general' ... a taste of all the specialisms available.
- A two years specialism in one out of metal (= mechanical engineering) with 30 pupils in the final year; electrical with 40 pupils in the final year; building (mostly carpentry) with 27 final year pupils; motor vehicle with 25; installation (plumbing and heating and ventilating) with 14.

Early in the first year students with particular educational problems are put into an 'individual' stream where they concentrate less on theory and more on practical work. By the end of the second year the remaining students are streamed into either T (theory) or P (practical), the former destined for a four year full time technician course, the latter aiming to be skilled or semi-skilled craftsmen and going straight into industry with part time day release.

The choice of specialism for the last two years depends on the aptitudes and abilities of the students (individual stream students cannot specialise in motor vehicle or electrical work; the theory stream was only available in metal and electrical); on the availability of school facilities (although there was some flexibility, the facilities would not allow too much deviation from the number quoted above); and on the wishes of the children and their parents. Insofar as parental wishes were based on a perception of job opportunities, it could be said that this provided some reflection of industrial need in the community, but there was no formal manpower planning, and indeed no contact with local industry to discuss the content or approach of the courses. The motor vehicle students, however, were using material prepared by the Dutch equivalent of the Road Transport Industrial Training Board (RTITB) in Britain.

As with much else in the Dutch education system, a very formal paper position is tempered in practice by common sense and it is possible for students who feel that they have made the wrong choice of specialism to stay on for a fifth year and follow the fourth year in another trade.

At the end of the course students take theoretical examinations in three groups: A, B and C; practical examinations and their standards are controlled by the school. The C group take an external exam for entry to the secondary (intermediate) technical school (MTS), while the A and B groups, who are destined for the regional college, take internal exams only. In practice the examination groups correspond to the T, P and individual streams, but there is an opportunity for a pupil to try an examination subject of a non-corresponding group if he thinks it will be more suitable for him.

MTS

To get a view of the output of the LBOs,EDUCA went to an MTS which runs four year full-time courses with specialisms including electrical, construction, metal and processes (i.e. science-based). Its standard of equipment is equal to comparable colleges in the UK. There are two main streams at entry: an 'O' level equivalent from the MAVO and the C group from the LBO. In the first year at MTS they are streamed separately, with the ex-LBO boy concentrating on theory and the ex-MAVO boy on practice (the MAVO education having been highly theoretical). Until this MTS changed its policy recently and approached the LTS intake via practice there was a 30 per cent drop-out of that intake at the end of the first year. This has now improved, but there is still an expectation that the ex-MAVO student, probably more intelligent and with a stronger theoretical base, will perform better on the course and in industry.

REGIONAL COLLEGE

A regional college is an establishment where apprentices follow the theoretical education of the elementary vocational courses on one day a week over two years. Students under 17 have to attend for a second day. The college EDUCA visited has seven departments: metal; woodwork (including boat building); electrical; automotive (including an MTS level course, and also with provision for a three year course for students who had not followed motor vehicle studies at their LBO); office and business studies; retail distribution; and care (the only full time course in the college).

The entry is from LBO at A or B level. In theory the standard entry is B level, but in practice students vary in standard depending on which LBO they come from. The qualification standards at the end of the course are set by the training board examinations.

To cope with this variable entry and fixed standard end-point, the college has established its own threshold standards and entry tests. Students who are not up to them, are able to use a series of internally designed remedial packages. However there is no corrolary that students who are well above the standard gain exemptions. In many cases the college covers, although perhaps to a different degree of depth and from a different standpoint, theory already studied in the LBO, and the college certainly does concentrate on theory. It does not have the standard or quantity of equipment for its technical classes to be treated in any other way, although the office and retail classes are better served. There is a strong corporate view that training is industry's responsibility and the college's job is to make sure that the theory is properly understood.

In the first year (when two days in college are compulsory) one day is focussed in this theoretical manner on the student's trade, while on the other (when the focus is on the student as an individual) there is an opportunity of remedial work and a

choice from about 50 activities for which the student 'signs up' on a termly or annual basis.

POSSIBLE DEVELOPMENTS

There is a lobby in Dutch industry that the community, not the industry, should bear the direct cost of training at the regional college level. This is supported by the views of parents and, so EDUCA was told, of students, who prefer the Dutch tradition of full time education to be implemented at this level as well as the others. Discussions are continuing with the aim of introducing next year two years full time vocational education on top of the LBO with standards set by the training boards. It is not yet certain whether this will immediately be compulsory to 18 (in which case the regional colleges will change their role and be absorbed in the new pattern), or voluntary (in which case new institutions will be introduced alongside the regional colleges which will remain predominatly part time).

TEN QUESTIONS

EDUCA set out to get the answers to ten questions about the Dutch system, and particularly about engineering education in the LBO:

1. *How much investment is there in school workshops?*

   On what EDUCA saw the answer is considerable. At the LBO (although not at the regional college) the workshops were properly constructed, with adequate floor strengths and ventilation to take machine tools and other equipment which was at least 'training centre' size and style. There were sufficient numbers of tools for the class to be kept busy as individuals (although not necessarily all doing the same thing simultaneously).

2. *Do the teachers of technical subjects have industrial experience?*

   This was the case at the LBO visited by EDUCA, but may not be as common now as it was, say, ten years ago.

3. *What mechanism is there for updating teachers in their technical subjects?*

   There was no official systematic arrangement in the LBO; it would be largely left to the individual. By contrast there is an organisation which brings together the 80+ MTS and this is able to take the initiative and arrange for teacher updating courses (as the country is small and communications superb, these can often be held in the evening).

4. *What standards of safety and discipline can be imposed in school?*

There was an obvious concentration on safety practice and dress in the LBO and the MTS (not so in the regional college where machine tools, for example, were treated as laboratory equipment). The UK comparison would be with the standards in a technical college rather than an industrial training centre.

5. *What standards of skill can be achieved in school by the age of 16?*

At the LBO EDUCA visited the standards seemed just good enough to have been worth a pass in the old C&G Craft Practice Part I exams, but it would not have been a very good pass. The main reason was the lack of repetitive practice to 'confirm' the skills which had been learned. This was an impression rather than a proven fact based on exact measurement of test pieces, but it may serve as a reference point to British readers.

6. *Does the system produce good craftsmen?*

Not by itself. It depends, as do the proposals in IP49, on the subsequent industrial training being of a high standard. But the existence of training in schools may give industry the impression that it does not have to do so much training itself. The Dutch system also means that it is always the less able boys who go into craft occupations, and this presumably has serious implications for the future development of craftsmanship.

7. *Does engineering education at school provide problems for the next stage of technical education?*

Yes, or so both the MTS and the regional college thought, although EDUCA doubts if the problems were any worse than most encountered when students transfer from any lower institution to a higher. In many ways they are insignificant problems, because the number of different backgrounds to the students are so few.

8. *Does engineering education at school lead to premature choice of career?*

Engineering education from 14-16 tends to be only for the less able Dutch boys, and there is clearly a balance to be struck between

putting them very young on the road which they will follow for life and giving them a school course which motivates them with the basis of marketable skill. In the UK our track record of boring the pants off the less able kids with unsuitable academic studies does not enable us to criticise the Dutch for forcing them into premature career decisions. In fact we must surely say 'For God's sake think twice before you follow our example'.

9. *What are the relations with industry?*

We have seen that in the LBO they are non-existent. Even at the post 16 level they are not good. This is partly because of the Dutch educational tradition, partly because of educational tradition, partly because of educational politicians (they have their quota too) who think (and do so aloud) that any contact between education and industry is 'detracting from educational freedom' or is 'reinforcing the capitalist system'. So any contact is either unofficial or kept secret.

10. *What about girls?*

There were no girls at the LBO; virtually none on the technical courses at the regional college; only 11 out of 1100 students at the MTS (and six of those were in the process courses, and two in interior design). EDUCA's hosts showed surprise, even laughter, when it was suggested that one way of getting more intelligent manpower into engineering was to use womanpower.

CONCLUSIONS

Three institutions do not make a system. The ones EDUCA went to see may have been atypical. They certainly were in one respect: there was no spectre of unemployment in the areas visited. It might have been a different story in the centre of Amsterdam or in a rural area in the south.

But with those reservations there are useful conclusions to be drawn from the Dutch experience:

- You cannot expect to get consistent industrial standards from the school system; the best you can hope for is a range of results, and so it is necessary to provide (in TEC terminology) a 'jagged edge' entry, with remedial packages

and exemptions, if the school achievement is to be exploited to the full.

- Vocational training in school could easily become a sump for the least academic, especially if there is a concentration on practical skills. This would be no way to attract better qualified boys and girls into engineering craft careers.

- Vocational training in school does provide motivation and career opportunities for the less academic and should be encouraged on those grounds alone.

- Any training success in the Dutch LBO depends on teachers with industrial experience and good equipment in properly designed workshops. In the UK these are more likely to be found in technical colleges than schools, which prompts the thought that if resources are to be put into transfering responsibility for some of the training from industry to the state, would it not be best to do this via the technical college system?

- There are political hazards in every approach: To earmark funds for training in schools or for increasing college provision, it would be necessary to overcome the British Department of the Environment's rooted (and obsolete) objection to specific grants; to do anything sensible through the education system it would be necessary to give it the use of funds which can now be presented to the trade unions as coming under the Department of Employment and which therefore must be connected with employment opportunities. If the Engineering Industry Training Board wants the education system (whether in schools or colleges) to change to meet its training aims, it will probably also have to amend those aims to accommodate the ethos and traditions of the education system.

- Despite all those difficulties and drawbacks it is still worth an effort to get some form of practical engineering education into the schools.

APPENDIX I

THE HELPING AGENCIES AND RESEARCH INSTITUTES

There are three organisations which act as helping agencies for the part time educational institutions. They are:

1. COBO which exists to help the 28 BBO colleges. It serves as a meeting place where principals can exchange ideas on educational methods, curricula and organisation. It has a permanent staff which organises teacher training and in-service courses for teachers. It has specialists in most aspects of college work who can be called in by individual colleges for advice and help.

2. LOVWJ performs much the same functions for the Vormingswerk Institutions, though with the greater number involved (about 200), there is not such a close institutional relationship as exists in COBO with its 28 colleges.

3. SUS looks after the participative education institutions. Its first task was to recommend to the Ministry which places should be designated as experimental institutions. All BBO and Vormingswerk Institutions were invited to volunteer if they felt they had programmes which fulfilled the objectives. Of 30 applications received by SUS, six were chosen. After inspecting and selecting the institutions, SUS acted as a helping agency for the six. They will help others as they reach integration.

   SUS advisers become involved if the problems of the institution relate to education participation. Organisational problems are dealt with only incidentally. SUS has published a book of guidelines which describes methods of student induction, guidance for option choice, and gives examples of good practice. It also offers training in counselling, social and life skills, constructing a programme, etc. Training is normally done in the institution requesting it, but counselling courses are run at SUS central office. SUS is also involved in helping the internal evaluation of programmes.

Research Institutes

1. SVO - The National Research Board approves research into centrally funded education. It conducts no direct research but acts as an agency which recommends proposals to the Minister. For research into participation education in the BBO/VI area there is a small working committee of the directors of the institutes. This committee acts separately from SVO and is monitored for the Minister (from whom it receives funds) by the Innovation Commission (ICP). Five institutions are members of this committee.

2. ITS - *Instituut for Toegepaste Sociologie* - is an independent research institute with slight attachments to the Catholic University of Nijmegen. It has more than 40 full time researchers on its staff. It conducts contact research in the field of labour economics, labour relations, social and educational policy.

APPENDIX II

BASIC STATISTICS ON THE NETHERLANDS

The most significant fact about the Netherlands is that it is the most densely populated country in Europe. Its population is not much larger than that of greater London, but its total area is one of the smallest in Europe. This has obvious effects on the provision of education in the country.

Table 1

Area in square kilometres ('000s.)

France	544
Sweden	450
Italy	301.3
West Germany	248.6
United Kingdom	244.1
Netherlands	41.2
Belgium	30.5

Table 2

1976 Population ('000s.)

West Germany	61,531
Italy	56,169
United Kingdom	56,001
France	52,893
Netherlands	13,774
Belgium	9,818
Sweden	8,222

Table 3

Density per square kilometre

Netherlands	334
Belgium	322
West Germany	248
United Kingdom	229
Italy	186
France	97
Sweden	18

Educational provision is closely connected to demographic trends. Birth rates have been falling over the last few years and have created problems in educational planning and the use of existing resources of plant and staff.

Table 4

Birth rate per '000 (1976)

Italy	13.9 (16)
France	13.6 (15)
Netherlands	12.9 (14)
Belgium	12.3 (13)
United Kingdom	12.1 (13)
Sweden	11.9 (13)
West Germany	9.8 (10)

The figures in brackets indicate the birth rate 1970-74. The Netherlands has one of the lowest death rates in Europe and so with falling birth rates faces an increasing imbalance in the number of people over retirement age.

Table 5

Death rate per '000 (1976)

United Kingdom	12.2
Belgium	12.1
West Germany	11.9
Sweden	11.0
France	10.4
Italy	9.7
Netherlands	8.3

Table 6

Civilian working population as percentage of total population (1976)

Sweden	50.5
United Kingdom	46.0
West Germany	41.6
France	41.3
Belgium	40.2
Italy	35.0
Netherlands	34.6

In terms of its economic position, Netherlands occupies a comfortably prosperous position. In terms of gross domestic product it lies well below other European countries but this is because of its size. In terms of its rate of growth per head of working population it is a leading performer. Its trading balance is normally in surplus.

Table 7

Gross domestic product at market prices 1976.

West Germany	398.8
France	310.1
United Kingdom	196.2
Italy	154.7
Netherlands	80.1
Sweden	66.4
Belgium	59.1

Table 8

Annual rate of growth of GDP at market prices (at constant prices) 1966-76

	Total	Per head of population	Per head of occupied population
Netherlands	4.7	3.7	4.5
France	4.7	3.9	4.1
Belgium	4.5	4.1	4.2
Italy	4.2	3.4	3.8
West Germany	3.5	3.1	4.1
Sweden	3.1	2.5	2.1
United Kingdom	2.2	1.9	2.5

In terms of GDP per capita the Netherlands occupies a reasonable position.

Table 9

GDP per capita in dollars 1973

Sweden	6,185
West Germany	5,929
Belgium	5,196
Netherlands	4,939
France	4,893
United Kingdom	3,257
Italy	2,609

In terms of weekly hours of work per manual worker the Netherlands and Belgium lie at the lower end of the scale. This gives them a relatively high reading for GNP per man hour of work.

Table 10

Average weekly hours of work per manual worker

Belgium	37.3 (77)
Netherlands	40.9 (77)
Italy	41.2 (76)
France	41.8 (77)
West Germany	41.8 (77)
United Kingdom	42.2 (76)

Educational provision in the Netherlands is on a scale very much less than most European countries. The total number of pupils and students in full time education is comparatively low. But as a percentage of the total population it is noticeably high.

Table 11

Number of pupils and students in full time education 1976/77 ('000s)

United Kingdom	11,595
West Germany	11,535
France	10,852
Italy	10,798
Netherlands	3,112
Belgium	1,920

Table 12

Number of pupils and students in full time education as percentage of total population 1976/77 ('000s)

Netherlands	22.6
United Kingdom	20.7
France	20.5
Belgium	19.6
Italy	19.2
West Germany	18.7

SOURCE: Eurostat - Basic Statistics of the Community. Statistical Office of the European Communities, 1978.

APPENDIX III

ADDRESSES OF ORGANISATIONS REFERRED TO IN THESE PAPERS

Ministry of Education and Science
Mieuwe Uitleg
The Hague.

ICP
Onderwijscentrum Zeist
Laan Van Vollenhove 3227
Zeist.

Department of Educational Research,
Institute of Applied Sociology
(Instituut Voor Toegepaste Sociologie)
Verlengde Groenestraat
Nijmegen.

Onderzoeksgroep Participatie-Onderwijs
p/a N.I.V.O.R.
Bijleveldsingel 70
Nijmegen.

SUS and COBO
De Gagel
St.Laurensdreef 49
Utrecht

VEV
Barneveldse Straat 39
Nykerk.

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